

APPENDIX B

UXO SAFETY PLAN

Unexploded Ordnance Safety Plan Attachment

Investigation of AWWSB Tank Sites Near Baby Bains Gap Road Ranges

**Fort McClellan
Calhoun County, Alabama**

Prepared for:

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Contract No. DACA21-96-D-0018
Project No. 800486**

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Revision 0

Unexploded Ordnance Safety Plan Attachment

Investigation of AWWSB Tanks Site Near Baby Bains Gap Road Ranges

I have read and approve this site-specific unexploded ordnance (UXO) safety plan attachment for the investigation of two future Anniston Water Works and Sewer (AWWSB) Tank Sites located near the Baby Bains Gap Road Ranges at Fort McClellan, Alabama, with respect to project hazards, regulatory requirements, and Shaw UXO procedures.



Robert W. Hickman, Jr.
UXO Technical Manager

7 July 05
Date



Winston D. Russell
Health & Safety Manager

7-18-05
Date

Table of Contents

	Page
List of Acronyms.....	ii
1.0 Introduction	1
2.0 UXO Personnel.....	2
3.0 Responsibilities	2
4.0 Authority.....	2
5.0 UXO Avoidance Procedures to Support HTRW Sampling Activities at FTMC	3
6.0 Safety	5
7.0 Quality	5
8.0 References	6

Attachment 1 - Fort McClellan UXO Supplementary Procedures

List of Acronyms

AWWSB	Anniston Water Works and Sewer Board
BBGR	Baby Bains Gap Road
FTMC	Fort McClellan
IT	IT Corporation
mm	millimeter
OE	ordnance and explosives
RI	remedial investigation
USACE	U.S. Army Corps of Engineers
UXO	unexploded ordnance
XRF	x-ray fluorescence

1.0 Introduction

This document defines anomaly avoidance procedures for activities to be performed by Shaw Environmental, Inc. (Shaw) unexploded ordnance (UXO) personnel in conjunction with the investigation of two future Anniston Water Works and Sewer Board (AWWSB) Tank Sites located near the Baby Bains Gap Road (BBGR) Ranges at Fort McClellan (FTMC), Calhoun County, Alabama. This document is not a stand-alone document; it must be used in conjunction with the *Fort McClellan Unexploded Ordnance Supplementary Procedures* (IT Corporation [IT], 2001), included as Attachment 1.

Shaw UXO personnel will perform visual surveys, assisted by hand-held magnetometers and metal detectors, to support the collection of x-ray fluorescence (XRF) surface soil samples for chemical analysis. The purpose is to avoid ordnance and explosives (OE) during sampling and associated field activities. Intrusive anomaly investigation is not authorized for this site work.

The AWWSB Tank Sites are located adjacent to former Ranges 23 and 25, which are part of the BBGR Ranges. Ranges 23 and 25 and the tank site locations are shown on Figures 1 through 3 of the letter work plan. Range 23 and Range 25 were small-arms ranges that were previously investigated by Shaw during a remedial investigation (RI). However, the tank sites are located outside the RI area of investigation and no samples were collected during the RI. Therefore, investigation of these areas is required prior to property transfer.

Range 23, Trainfire (Record) Range, Parcel 79Q. Historical records state that Range 23 has been in use since 1951. Ordnance fired at this range included M-16 automatic rifle and M-16 with tracer. Additionally, that other artillery ordnance impact has been evidenced at Range 23 as base personnel have found shell fragments and an unexploded mortar round. The ASR Range 23 (OA-41) site history describes this range as starting the Inter-War period as a pistol range and later changed into rifle and machine gun training with multiple orientations and layouts utilized during this period. Further, the ASR reports that part of this area was used in Combat Range #1 (OA-43).

Range 25, Known Distance Range, Parcel 83Q. Range 25 is one of the oldest ranges at FTMC; its first documented use was in 1937. Interviews with FTMC personnel indicate that Range 25 was originally constructed as a 600-yard known distance range for training with the M-1903 Springfield rifle (.30 caliber) and M-1 Garand rifle (.30 caliber). Weapons fired at this

range includes various small arms, e.g., M-14 (7.62 millimeter [mm]), M-16 (5.56 mm), M-1 (.30 caliber), and M-60 (7.62 mm) with tracer ammunition. Personnel interviews indicate that this range was also used as a machine gun range. Records maintained at FTMC Range Control indicate that the range was used for M-14 training (Environmental Science and Engineering, Inc. [ESE], 1998). All records previous to this period are unavailable. Day-and-night-phase firing was practiced here (ESE, 1998).

During previous site walks, numerous mortar rounds were observed by ESE personnel on the ground surface in an impact area behind (north) of the Range 25 berm (Parcel 118Q-X). Ordnance items observed include mortar and artillery rounds. These items are sometimes encountered after heavy rains. Numerous 3-inch mortar rounds were also observed behind the backstop at this range during the site visit by ESE personnel preparing the environmental baseline survey (ESE, 1998). Personnel of the local Army Explosive Ordnance Disposal unit accompanied ESE personnel to this site and report that these 3-inch mortar rounds appeared to be sand-filled or otherwise inert.

2.0 UXO Personnel

UXO personnel requirements will be in accordance with Engineer Pamphlet (EP) 75-1-2 *Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic, and Radioactive Waste (HTRW) and Construction Activities* (U.S. Army Corps of Engineers [USACE], 2004) and the installation-wide sampling and analysis plan (IT, 2000) for FTMC. A UXO specialist(s) will be on site during all sampling or intrusive activities where OE is suspected.

3.0 Responsibilities

The onsite UXO specialist(s) will provide UXO avoidance, explosive ordnance recognition, location, and safety functions for Shaw employees and any subcontractors during sampling activities. Sampling activities at this site include staking and surveying sample grids, XRF surface soil sampling, and egress to and from the site.

4.0 Authority

Shaw UXO personnel are authorized to perform UXO avoidance activities only. UXO personnel are not permitted to initiate OE investigative or disposal activities.

5.0 UXO Avoidance Procedures to Support HTRW Sampling Activities at FTMC

The scope of work for investigation activities at the two AWWSB tank sites includes the following UXO tasks:

- Provide surveys for all intrusive field activities (e.g., sample grid staking).
- Provide UXO avoidance support during the collection of XRF surface soil samples.

Since these areas may contain OE contamination, the UXO team must conduct a surface access survey for UXO before any type of activities commence. This includes foot and vehicular traffic. UXO avoidance activities will include:

- a) Access Corridors and Sampling Sites
 - (1) The UXO team will conduct access surveys of the footpaths and vehicular lanes approaching and leaving each of the investigation sites. Access surveys will begin in a known clear area and proceed by the most direct route to the sampling site. The boundaries of the access route and sampling site will be marked with white tape or white pin flags.
 - (2) If an OE item is found during the survey, the location will be conspicuously marked with a red pin flag and avoided by altering the route. Additionally, UXO personnel will complete the Shaw “Unexploded Ordnance Report Form.” Subsurface anomalies will be marked with a yellow flag.
 - (3) The boundaries of the access route and sampling site will be recorded in the Shaw “UXO Sketch Log” by the UXO technician. Additionally, anomaly locations will be recorded on this form.
 - (4) Instrumentation used at this site may include the Schonstedt GA 72, the CST Corporation Magna-Trak 102, or the Whites Spectrum XLT Metal Detector. All equipment will be operated as specified in the appropriate operator’s manual. All equipment will be function tested prior to use following the procedure in paragraph 3.2, *FTMC UXO Supplementary Procedures* (IT, 2001) and the manufacturer’s instructions.

- (5) Footpath lanes will be a minimum of three feet wide. As necessary, the access route will be twice as wide as the widest vehicle that will use the route.
- (6) If surface OE or subsurface anomalies are encountered that cannot be avoided, the access route must be diverted to avoid contact. No personnel will be allowed outside of the surveyed areas without a UXO escort. No unescorted access will be permitted inside the corridor area until a survey has been completed and the boundaries established.
- (7) Surface soil samples are normally collected at depths of 0 to 12 inches below ground surface. The UXO specialist will survey the area of the soil sampling site for any indication of OE. Sampling is not permitted at any location where an anomaly has been detected.
- (8) Vehicles whose movement would disturb the soil are authorized for use only in areas that have been surveyed and in which no anomalies have been detected.
- (9) If grading or soil movement is required to support access corridor development or a sampling location, the UXO specialist will perform a survey. After an area has been surveyed and no anomalies have been detected, soil can be removed at a rate of no more than one foot per cut. If additional grading is required, another survey will be performed after each one foot of soil has been removed.
- (10) Erosion and weathering will typically cause some OE items to leach to the surface or otherwise be uncovered. In cases where access corridors or sampling locations have not been surveyed or traversed for a period of time, additional surveys may be required. The decision regarding the performance of follow-on surveys will be made by the UXO specialist in consultation with the Field Team Leader. The decision will be based on such factors as: the amount of time since the last survey was performed, the weather during this period, the terrain in the area of concern, the former use of the area, and the type of quantity of OE found during initial surveys.

b) Vegetation Removal

In cases where removal of large trees or other vegetation is required to support access or sampling operations, the procedures in paragraph 4.2, *FTMC UXO Supplementary Procedures* (IT, 2001) will be followed.

c) Magnetometer/Metal Detector Checkout and Field Procedures

The procedures in paragraph 3.0, *FTMC UXO Supplementary Procedures* (IT, 2001) will be followed. Since portions of the sites described in this safety plan includes a portion(s) of a World War I artillery range impact area, the function test will utilize the function test ordnance that most closely approximates the 75mm projectile. For work on Range 25, the 60mm mortar or 75mm projectile will be used to function test the instruments since 3-inch mortar ammunition has been seen during site walks.

d) UXO Logbooks and Documentation

All UXO personnel identified in paragraph 5.0, *FTMC UXO Supplementary Procedures* (IT, 2001) will maintain a logbook in accordance with that procedure.

6.0 Safety

In addition to the requirements of the site-specific safety and health plan prepared for this site, the UXO personnel will ensure the following:

- a) The onsite UXO specialist will monitor UXO activities to ensure compliance with applicable safety requirements.
- b) The onsite UXO specialist is responsible for any site-specific UXO training.
- c) The onsite UXO specialist will advise project personnel regarding all evacuation and/or exclusion zones as appropriate. The UXO technician will monitor all site sampling activities to ensure that only the minimum number of personnel are present on site.

7.0 Quality

The onsite UXO specialist will follow quality control instructions and procedures listed in Section 9.0 of the installation-wide OE management plan contained in Volume IV of the installation-wide sampling and analysis plan (IT, 2000) appropriate to this task and the FTMC UXO Supplementary Procedures. The onsite UXO specialist will also utilize the “UXO Avoidance Quality Control Report” to document his activities. Copies of this form will be provided to the Shaw quality assurance representative upon request.

8.0 References

Environmental Science and Engineering, Inc. (ESE), 1998, *Final Environmental Baseline Survey, Fort McClellan, Alabama*, prepared for U.S. Army Environmental Center, Aberdeen Proving Ground, Maryland, January.

IT Corporation (IT), 2001, *Fort McClellan Unexploded Ordnance Supplementary Procedures*, June.

IT Corporation (IT), 2000, *Final Installation-Wide Sampling and Analysis Plan, Fort McClellan, Calhoun County, Alabama*, March.

U. S. Army Corps of Engineers (USACE), 2004, *Munitions and Explosives of Concern (MEC) Support During Hazardous, Toxic, and Radioactive Waste (HTRW) and Construction Activities*, Engineer Pamphlet (EP) 75-1-2, 1 August.

U.S. Army Corps of Engineers (USACE), 1999, *Archives Search Report, Maps, Fort McClellan, Anniston, Alabama*, July.

ATTACHMENT 1

FORT McCLELLAN UXO SUPPLEMENTARY PROCEDURES



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	1 of 14

FTMC UXO SUPPLEMENTARY PROCEDURES

Subject: Ordnance and Explosives

1.0 INTRODUCTION

Shaw Environmental, Inc. (Shaw), formerly IT Corporation, has been retained by the U.S. Army Corps of Engineers-Mobile District, under Contract Number DACA21-96-D-0018, to provide environmental services related to Base realignment and closure (BRAC) of Fort McClellan, Alabama. The Installation-Wide Ordnance and Explosives (OE) Management Plan for Fort McClellan (FTMC) was prepared by Shaw and submitted as a final document in March 2000. The Installation-Wide OE Management Plan was prepared to provide general guidance for conducting unexploded ordnance (UXO) work associated with hazardous, toxic, and radiological waste (HTRW) investigations and remedial activities currently in progress at FTMC. Shaw prepares site-specific field sampling, health and safety, and UXO safety plans for sites where fieldwork will occur that may potentially contain OE. A UXO Safety Plan is not prepared for sites that are not reported to be in areas containing OE.

1.1 Purpose

This document is intended to provide procedures to the field staff that outline UXO operations and clarify activities currently permitted under "anomaly avoidance." The document is not intended to replace any of the project documents currently approved; rather, it is intended to complement those documents with additional information that allows successful completion of the job.

2.0 FTMC EMPLOYEE ORIENTATION/TRAINING AND CERTIFICATION

The Shaw FTMC orientation program is designed to:

- Indoctrinate new employees to FTMC-unique procedures
- Verify compliance with regulatory certification requirements
- Provide continuing instruction and updating in UXO fundamentals to sustain readiness to safely perform UXO tasks



2.1 Responsibilities

The Shaw OE Service Center Operations Manager will oversee the training programs and maintain a master record of UXO employee training and certification status.

The UXO person designated as the senior Shaw UXO individual at FTMC will schedule the orientation listed below.

The FTMC UXO Safety Officer will:

- Conduct all UXO-specific orientation and training at FTMC
- Certify that each new UXO employee is capable of performing UXO work activities at FTMC
- Maintain FTMC training files and records on each UXO technician on site reflecting his or her current training status.

2.2 UXO Employee Orientation

Every UXO employee assigned to FTMC will receive a site-specific UXO orientation in addition to training required by the Occupational Health and Safety Administration (OSHA). This orientation will include, as a minimum, the following topics:

- Local emergency response drills and procedures
- Personal protective equipment (PPE) and personnel decontamination procedures
- Ordnance recognition/UXO expected to be encountered at FTMC
- Equipment safety
- FTMC site orientation
- Chemical warfare material (CWM) awareness and procedures
- Communications procedures
- FTMC Logbook/data recording procedures
- Shaw administrative policies and procedures
- Magnetometer checkout procedures
- Accident reporting procedures.

Upon completion of the UXO employee orientation, the FTMC UXO Safety Officer will monitor the performance of the new hire for at least three workdays while conducting typical UXO activities. The FTMC UXO Safety Officer will



then certify that the individual is capable of performing UXO activities at FTMC based upon satisfactory performance of the three-day period. A copy of this certification will be maintained in the individual's site FTMC training file (see example at Attachment 1).

2.3 UXO Sustainment Training

All UXO technicians have had the OSHA 40-hour hazardous waste operations and emergency response (HAZWOPER) course in order to be initially certified at FTMC. They are also required to maintain the certification with an 8-hour OSHA refresher course on an annual basis. Additionally, all Shaw FTMC UXO personnel will have 8 hours of site-specific annual UXO sustainment training. This training can be performed incrementally (2 hours every quarter) at the discretion of the site superintendent in coordination with the FTMC Shaw UXO Safety Officer. Topics will include, but are not limited to, the following subjects:

- Site-specific environmental hazards
- Site-specific UXO hazards, ordnance fuzing, functioning and precautions
- Topics which the Shaw UXO Team Leader or Shaw Safety UXO Officer determines necessary to support FTMC UXO activities

Sustainment training will be conducted for a period of no less than 8 hours. Daily safety briefings, tailgate safety meetings, and other required site-specific training are not a substitute for this training. The purpose of this training is to provide each UXO employee with site-specific UXO training over and above OSHA requirements. The site-specific UXO training will be recorded in the project file and the UXO employee's personnel file.

3.0 FTMC MAGNETOMETER/METAL DETECTOR FUNCTION TEST AND FIELD PROCEDURES

This section provides FTMC magnetometer/metal detector function tests and operating procedures to be employed at all work sites that have been identified as requiring avoidance support.

3.1 Geophysical Test Plot

The purpose of a test plot is to provide a consistent environment where the equipment can be evaluated. This plot will be established as follows



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	4 of 14

- The test plot will be located in a clear area at the west entrance to the FTMC Transition Force Compound.
- The test plot will contain inert ordnance items at depths and attitudes characteristic of previous ordnance encounters at FTMC. Examples of test items include: a 37mm APT buried at a depth of eight inches and in a 45-degree, nose-down attitude; an aluminum alloy snap flare buried four inches in a horizontal attitude; a 60mm mortar twelve inches deep and in a 60-degree, nose-down attitude; a 2.36-inch rocket at a depth of twelve inches and in a 60-degree, nose-down attitude; and a 75mm canister projectile buried eight inches deep in a horizontal attitude. Each burial location will be marked with a wooden stake located to the east of the object. Each stake will be tagged or marked to denote the depth, type of item, and orientation of the item. The site will utilize native soils; no fill material will be brought in from another area. Sand may be used to cover the area to mitigate the effects of wet weather.
- For downhole magnetometer testing, a length of 2-inch PVC pipe will be buried to a depth of 48 inches. The location of the test item, similar in size and mass to a 2.36 inch rocket, will be marked with a wooden stake tagged to denote the depth, type of item, orientation, and reference number assigned. This item will be buried at a depth of twelve inches.

3.2 Magnetometer/Metal Detector Check-Out Procedures

- Prior to field use, all magnetometers and metal detectors will be set up following the guidelines in the manufacturer's operating manual for the specific instrument used. Instrumentation used at this site will include the Schonstedt GA 72, the CST Corporation Magna-Trak 102, or White's Spectrum XLT Metal Detector. Additionally, the Schonstedt MG-220 or MG-230 will be set up for downhole monitoring. All equipment will be operated in a manner consistent with instructions contained in the appropriate operator's manual. All equipment will be function-tested prior to use. The White's Metal Detector will be used in conjunction with hand-held magnetometers in areas of high concentrations of rocks with a magnetic signature, to assist in eliminating anomalies created by "hot rocks." The operating manual for each of the instruments used at FTMC will be available for use with the equipment.



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	5 of 14

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- Once the instrument has been determined to be working according to the manufacturer's operating manual, the operator will perform a function test on the FTMC geophysical test plot using the detection methods described in the manual. A function test will consist of using the instrument over a minimum of three test sources. The same sources will be used during each function test to ensure consistency. The instrument detection indicator, as described in the operator's manual, will be noted in the instrument logbook. For site checks, a 6-inch length of 1/2-inch steel reinforcing rod will be available to each operator at the work site.
 - Instruments that fail to reproduce a detection indication consistent with previous tests will be checked to ensure that the power supply or batteries are sufficient. If the power supply is determined to be sufficient and the operator cannot find a fault in accordance with the operator's manual, the instrument will be tagged and removed from service.
 - Function tests will be performed each morning before the equipment is put into service.
 - If an instrument is determined to be working improperly, the FTMC UXO Team Leader and the site superintendent will be immediately notified. Any activities performed using that instrument since its last positive test procedure will be considered invalid and will require reevaluation.
 - Upon completion of the function test, the function test will be secured in the operator's Daily Field Log Book.
 - After an instrument has been function-tested at the beginning of each day, the instrument will be checked at least once during every hour of use or each time the instrument is turned on after having been turned off. This check will consist of dropping the 6-inch length of 1/2-inch reinforcing rod in a clear area and passing the detector over the rod in a manner consistent with the operator's instructions. The instrument indication will be compared to the indication produced during the morning function test. Instruments that fail to produce a consistent indication will be checked and removed from service as required.



3.3 Equipment Documentation

Each piece of equipment will be assigned a logbook noting the make, model, manufacturer, and serial number of the equipment. The following information will be recorded:

- Factory (off-site) maintenance
- On-site repair activities
- Other actions which could alter the performance of the instrument

The Shaw FTMC Quality Control (QC) Officer will perform random audits of equipment function tests and will record the fact that the test was performed in accordance with these procedures.

3.4 Magnetometer/Metal Detector Field Procedures

All intrusive field activities in potential OE areas (e.g., digging, fence post driving, grading, well installation or excavation) will be preceded by a UXO sweep. Each hole made in areas where OE may potentially be found will have a check immediately over the spot of the intrusion. Magnetometer operations at FTMC will assume a detection depth of one foot when surveying an area for excavation.

All magnetometers and metal detectors will be operated in accordance with the manufacturers specifications and procedures.

When surveying a potential area for a sampling well, an area of sufficient size will be surveyed to allow for installation of required pads and bollards. After the well is installed, the location of bollards will be adjusted as required if an anomaly is detected during the bollard installation process.

The White's Metal Detector will be used to augment the magnetometers on sites where "hot rocks" are suspected. The purpose of using the metal detector in addition to the magnetometers is to eliminate the probability of "hot rocks."

4.0 FTMC ACCESS CLEARANCES, VEGETATION REMOVAL, AND ROAD MAINTENANCE

This section is designed to provide specific procedures regarding activities associated with the building of access corridors, vegetation removal, and road maintenance in support of FTMC operations.

4.1 Access Corridors



The purpose of access corridors is to enable Shaw personnel access to well and/or other types of sampling sites within FTMC. Access corridors will be created by marking the route, both length and width, in which a UXO survey has been performed. The marking method will be defined in each site-specific UXO safety plan. No unescorted access is permitted until a corridor has been established. If an anomaly is detected during the survey or during a subsequent excavation, it must be avoided, since investigation is not authorized. The route will be altered to avoid the anomaly for FTMC activities. A magnetometer is considered to reliably detect anomalies to a depth of one foot.

The size of each area to be surveyed is dependent on the type and quantity of equipment expected to be used on that site. The UXO survey crew will follow the procedures outlined in the site-specific UXO safety plan to determine the dimensions of the area to be surveyed. Normally, the width of the access route will be at least twice as wide as the widest vehicle that will use the route; footpaths will be a minimum of 3 feet wide.

Tracked or other vehicles that disturb the soil are authorized for use only in areas that have been surveyed and no anomalies have been detected.

Erosion and weathering will typically cause some UXO items to leach to the surface or otherwise be uncovered. In cases where access corridors or sampling sites have not been surveyed or traversed for a period of time, additional UXO surveys may be required. The decision regarding the performance of additional surveys will be made by the FTMC UXO team leader and the Shaw FTMC UXO Safety Officer. The site superintendent will be notified of this decision. This decision will be based on, but not limited to, such factors as: the amount of time since the last survey was performed; the weather during this period; the terrain in the area of concern; and the type and quantity of UXO found during initial surveys.

4.2 Vegetation Removal

In cases where removal of large trees or other types of vegetation is required, the following procedures will be followed:

- The UXO technician will survey around the base of the tree or vegetation, and, if no anomaly is detected, direct the bulldozer or other equipment to proceed. If an anomaly is detected, the location will be recorded and marked and another route will be selected. The size of the area to be



surveyed will depend on the size of the suspected root system of the tree to be removed.

- Once the tree has been pushed over, the UXO technician will survey around the root ball and the area in and around the hole. If an anomaly is detected, the anomaly will be recorded and marked and an alternate route will be selected. If no anomaly is detected, the UXO technician will direct the equipment operator to proceed with the excavation.

4.3 Road Maintenance

Remote range roads and trails frequently require a certain amount of repair to remain passable. This section describes authorized actions regarding the maintenance of dirt or gravel range roads by Shaw UXO personnel.

- Bulldozers or grader-type equipment is authorized to repair roads and trails as long as a UXO survey has been performed and no anomalies have been detected.
- The UXO technician will observe the blade of the equipment as the earth is moved. If a potential UXO is uncovered, the UXO technician will signal the equipment operator to immediately stop the equipment. The UXO technician will then attempt to visually identify the object. If the object cannot be positively identified as a non-hazardous item, the equipment will be moved, the location of the object marked and recorded on the Shaw FTMC Unexploded Ordnance Report Form (Attachment 2), and the route changed to avoid the object. If no suspicious objects are detected, the equipment will continue to move earth at a rate of no more than one foot of depth at a time. If, more grading is required after the first pass is complete the UXO technician will perform another survey. If no anomalies are detected, the equipment can repeat the grading process. If an anomaly is detected, the operation will be halted and the route changed.
- After an area has been surveyed and no anomalies have been detected, soil can be removed at a rate of no more than one foot per lift. If additional grading is required, a survey will be performed after each one-foot increment the soil has been removed.
- Earth may not, at any time, be moved at a rate of more than one foot in each lift.



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	9 of 14

5.0 FTMC UXO LOG BOOKS

All UXO team leaders or UXO technicians supporting HTRW operations will maintain a logbook. The purpose of the logbook is to record UXO actions and activities taken at each work site.

5.1 Responsibilities

UXO personnel will maintain an individual daily logbook of work activities.

The logbooks will be routinely inspected weekly by the UXO QC Officer and will be made available to the FTMC site superintendent upon request. Copies will be made daily and filed in the Shaw Field Project office.

Logbooks will contain bound and numbered pages. Entries will be on successive pages as work is performed. The individual using the logbook will sign the page after the last entry for that page has been made. Logbooks are part of the project legal file and will be filed with the project files upon completion of each investigation.



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	10 of 14

5.2 Data Requirements

As a minimum, individual logbooks will contain the following information:

- Date, time and location of UXO activities
- Personnel involved in the activities
- UXO activities performed, including UXO/anomalies found
- A description of areas swept
- A record of the magnetometer or other equipment used, including instrument serial number
- Weather conditions.

Shaw UXO personnel will utilize the Shaw FTMC Unexploded Ordnance Report Form (Attachment 2) to document the discovery of UXO/OE items.

The Shaw FTMC QC Officer will utilize the Shaw FTMC UXO Avoidance Quality Control Report (Attachment 3) to document checks of field activities.

Additionally, UXO personnel will complete Shaw FTMC Form UXO Sketch Log (Attachment 4) and Shaw FTMC Unexploded Ordnance Report Form. The UXO Sketch Log will contain a description of activities, including the dimensions of the area surveyed. A description of the length and width will be recorded, as well as the manner in which the survey was performed. These forms will be completed as required and presented to the site superintendent.



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	11 of 14

ATTACHMENT 1

FTMC Employee Certification (Example)

I certify that (name of individual) has fulfilled all UXO orientation requirements and has been observed by me for a period of 3 work days and is therefore eligible to perform UXO activities at FTMC.

Talmadge Bohannon
FTMC UXO Safety Officer



Procedure No. OE001
Revision No. 0
Date of Revision 10/23/02
Last Review Date 10/23/02
Page 12 of 14

ATTACHMENT 2

Unexploded Ordnance Report Form

Report Tracking Number:															
Discovery and Reporting Time															
<table border="1" style="width: 100%; border-collapse: collapse;"><tr><th colspan="2">Time of Discovery</th></tr><tr><td style="width: 50%; text-align: center;">Date</td><td style="width: 50%; text-align: center;">Time</td></tr><tr><td style="height: 20px;"></td><td></td></tr></table>		Time of Discovery		Date	Time			<table border="1" style="width: 100%; border-collapse: collapse;"><tr><th colspan="2">Time Reported to Base Transition Force</th></tr><tr><td style="width: 50%; text-align: center;">Date</td><td style="width: 50%; text-align: center;">Time</td></tr><tr><td style="height: 20px;"></td><td></td></tr></table>		Time Reported to Base Transition Force		Date	Time		
Time of Discovery															
Date	Time														
Time Reported to Base Transition Force															
Date	Time														
Employee Name: _____		Reported to FTMC Transitional Force Personnel Name: _____													
Location of Ordnance															
Location, Description, and Parcel Number: 															
Coordinates of Ordnance:		<table border="1" style="width: 100%; border-collapse: collapse;"><tr><th colspan="2">State Plane Coordinates</th></tr><tr><td style="width: 50%; text-align: center;">Northing</td><td style="width: 50%; text-align: center;">Easting</td></tr><tr><td style="height: 20px;"></td><td></td></tr></table>		State Plane Coordinates		Northing	Easting								
State Plane Coordinates															
Northing	Easting														
Written Description and/or Sketch of Ordnance: 															
Picture Taken of Ordnance															
Yes	No	Date	Time												
Corrective Action Taken by Fort McClellan Transition Force															
Date															



Procedure No.	OE001
Revision No.	0
Date of Revision	10/23/02
Last Review Date	10/23/02
Page	13 of 14

ATTACHMENT 3

UXO Quality Control Report

Project Location: _____

Date: _____

Work Site Location: _____

Day: _____

1. Personnel Involved:

2. Description of Work Being Performed:

3. Equipment Utilized:

4. Comments:

Completed By

Printed Name & Title

Signature

Date

These standard policies and procedures are applicable to all members of Shaw Environmental, Inc. except where superceded or modified by the member Company.

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Procedure No. OE001
Revision No. 0
Date of Revision 10/23/02
Last Review Date 10/23/02
Page 14 of 14

ATTACHMENT 4

UXO Sketch Location Log

District: _____ Hole Number: _____ Date: _____

Company Name: Shaw Environmental, Inc.

Subcontractor: _____

—

Parcel Location: _____ Well Location: _____ Date Started: _____ Date Completed: _____

Type of UXO Work Being Performed:

Most Probable Munition: _____

Down-Hole Depth Achieved for UXO Avoidance: _____

Total Number of Surface UXO Marked: _____

Total Number of Anomalies Marked: _____

Location Sketch/Comments:

Not to Scale

Signature of UXO Technician:

Date:

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